

BootCamp Project #1: US Birthrate Correlations

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Project Description/Outline:

Understanding if there is a correlation between birth rates in the United States and the time of year relative to holidays, weather, and more and how that varies by state based on 2018 vs 2019 data.

Research Questions to Answer:

- 1.) Determine the average birth rate by state.
- 2.) What are the birth rate trends by month in the total US and by the state?
- 3.) Is there a correlation between temperature and birthrates?
- 4.) Is there a US holiday that contributes to higher births based on birthrates 8-9months later.

Datasets to be used:

- 1) <https://www.cdc.gov/nchs/nvss/vsrr/provisional-tables.htm>
- 2) <https://openweathermap.org/api>
- 3) <https://www.census.gov/newsroom/press-kits/2019/national-state-estimates.html>
 - a) 2nd link - [NST-EST2019-01: Table 1. Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2019](#) [<1.0 MB]

Task Breakdown:

- 1.) Create Repository -shareable - check!
- 2.) Clean up the data
- 3.) Merge the two data sets
- 4.) Calculate Birth Rate in order to level out the states by population
- 5.) Add config.py file with API keys with weather
- 6.) Start finding correlations and plotting
- 7.) Make the presentation based on findings